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To suggest some appropriate courses of action in occupational education for the state of North Carolina, a 20-member advisory committee on vocational education undertook a comprehensive study of local administrative units which resulted in 33 recommendations. Some are (1) that arrangements be provided for regular, systematic and thorough evaluations of occupational education, (2) that a unified state policy for occupational education be developed, (3) that small high schools be replaced by high schools with 750 or more students, (4) that institutions for higher education become more fully involved in providing pre-service education, in-service education, research and development, and public and professional services for occupational education, (5) that the role of the private agencies be more commonly recognized in planning public occupational education programs, (6) that students be held in school long enough to secure the basic and general education required for occupational competency, (7) that suitable programs of occupational education be provided in the junior high schools or middle schools, and (8) that the state board of higher education make an immediate canvas of the need for personnel and arrange for recruitment and training. Ways and means of accomplishing the recommendations are suggested. (DM)

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PUBLIC SCHOOLS OF NORTH CAROLINA

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The Public School System of North Carolina

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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OCCUPATIONAL EDUCATION

The Commission's twenty-member Advisory Committee on Vocational Education has recommended unanimously the acceptance of the following definition of occupational education: education designed to contribute to occupational choice, competence, and advancement.

Thus defined, it includes vocational education, technical education, and education for the professions. It also includes the basic and general education required for specialized occupational education and for employment and advancement, occupational information and guidance, and the contributions of the practical arts, the language arts, science, mathematics, and other types of "general education."

This study has been confined to the local administrative units, hence does not deal with the technical and professional education provided in the four-year colleges and the Community College System except for the important ways in which the administrative units are related to programs in the colleges.

The Committee on Vocational Education also accepted unanimously three goals for the development of occupational education in the State:

(1) Establishment of a comprehensive program of occupational education including all education designed to contribute to occupational choice, competence, and advancement.
(2) Involvement of all units and all personnel in the State's system of public education in providing this type of education with proper articulation among them.
(3) Provision as rapidly as feasible of appropriate occupational education for all who need it, want it, and can profit from it regardless of age, sex, race, socio-economic situation, or any other consideration.

Mr. A. G. Bullard, State Director of Vocational Education, holds quite properly that career preparation is a process, not an event. This has been a guiding concept in the deliberations of the Committee on Vocational Education and in the preparation of this report.

North Carolina's superintendents have indicated in returning a questionnaire to the Commission that providing adequate vocational education is one of their two most urgent concerns. Interviews with superintendents in 37% of the State's administrative units provided further evidence of their concern.

AN OVERVIEW

Testimony was nearly universal that a considerable portion of those who enroll in vocational and technical programs in the high schools and the Community College System lack the basic and general education required for the specialized training these programs provide. Vocational and technical students are frequently found incompetent in the 3 R's, the communication arts, mathematics, and science. Remedial courses are provided for many of them in the Community College System.

There is general concern about the lack of occupational orientation, exploration, and guidance in grades 7 and 8. Many students in these grades have decided to leave school at their earliest opportunity. Counseling about occupations and the education required to enter them is needed. Programs in the practical arts in these grades are usually anemic or lacking since they receive no financial encouragement from the State. Broad programs in the practical arts including non-vocational Agriculture, Business, Home Economics, and Industrial Arts are especially needed in these grades but should be included in all grades of the junior high schools and middle schools that are being

organized. Some would extend the practical arts downward through all of the early grades.

Half of the high school students in the State were enrolled in federally-aided vocational courses in 1967-68, perhaps the highest percentage in any state. Many of the vocational offerings, especially in the smaller schools, were narrow and traditional. Much of the enrollment was in grades 9 and 10. Many were enrolled whose vocational goals were not firm and who are unlikely to use the training received.

There are three major groups of senior high school students for whom appropriate occupational education should be provided and many individual differences within these groups. The three groups are:

(1) Those who will leave school at or before high school graduation and need help in preparing for entry jobs. These comprise half of the student population.
(2) Those who will receive specialized vocational and technical education in the Community College System and need high school programs articulated with those they will pursue after high school.
(3) Those who say they are college-bound, many of whom will never reach college or will leave the colleges before graduation, still untrained occupationally.

School administrators seem to be most concerned about Group 1. There is obvious need to increase the schools' holding power and thus to reduce the numbers in this group. The elementary schools and junior high schools must be "beefed up" with adequate numbers of well qualified teachers and the special personnel needed to provide individual counseling and remedial education and to care for the pupils' mental and physical health.

The high schools are still burdened by a whole set of out-dated concepts. There is talk about the "academic" and "vocational" programs as though they were completely separated. "Academic" is a meaningless adjective when used in this connection. "Vocational" frequently means "federally aided" or "practical." More thought should be given to the basic function of the schools: preparation for American citizenship. Both vocational and general education contribute to this end.

It is obvious that "college-preparatory" programs do not prepare all uniformly well for college. It is well substantiated that students who have spent a part of their time in vocational programs usually do as well as those who have completed the special preparatory programs. College achievement can be predicted only with a wide margin of error, but it is more related to grades earned than to subjects studied.

Students who enroll in vocational courses but do not pursue the vocations for which they were allegedly preparing gain much of value regardless of their later careers. Many have learned to build their own houses. Students of Business acquire knowledge and skills useful in their personal affairs. Students in Distributive Education may learn more about living and working with people than they get from the social studies. Agriculture students secure employment after leaving school to a far greater extent than others in their age-groups although a minority enter agricultural occupations. Almost all women have homemaking responsibilities for which Home Economics prepares. Training in nursing is valuable to homemakers.

Well-conceived programs of occupational education help in adjusting to the real world and in understanding our economic system. They supplement, reinforce, and apply what is taught in English, mathematics, and science. They make students aware of the deficiencies in their general education. Grades in the nonvocational subjects are frequently raised following supervised work experience.

There should be no assumption that vocational courses are narrow. Their breadth depends upon the teachers. Vocational teachers probably contribute as much as other teachers to well-rounded human development.

Neither should it be assumed that vocational courses require little ability on the part of the students. There are some 30,000 occupations, 90 percent of them nonprofessional, in which the requirements range from simple to highly complex. Most vocational programs prepare for occupations requiring considerable intelligence. There is no point in accepting students in them who cannot take the training or become employed. Because there is such a wide range in occupations and their requirements, there is no better field than vocational education in which to provide for individual differences. It is shameful to limit an individual's opportunities for training to local occupations or to deny him knowledge of the wide world of work.

Many able students prefer the skilled trades, business, or farming rather than the professions. They are deterred from considering education for the professions by the prospect of four to seven years of collegiate education and the costs involved. Too many counselors do not know the opportunities offered by the non-professional occupations.

It is too frequently assumed that students who prepare in high school for a particular occupation have routed themselves into blind alleys and stunted their intellectual growth. Opportunities for further growth are fast becoming available through our burgeoning programs of adult education. One's general education as well as his vocational education may be advanced throughout adulthood. Much that we try to accomplish in general education during childhood and youth is done more effectively with more mature students.

Some educators excuse themselves from responsibility for vocational education by citing the prospect that a person may have to change occupations five to seven times during a lifetime. Education for vocational versatility can be defended but it should be remembered that a person needs to learn his first job well and that it is easier for a person skilled in something to transfer to another job than it is for one who has failed in his first job. Too many of our young people have never learned to do anything well; their prospects for seven jobs in a lifetime are dim.

In common parlance vocational education is too often equated with "shop work." The waters are further muddied by assuming that there is no content in vocational courses which requires the functioning of the intellect and that the methods do not stimulate intellectual development. All programs of vocational education are frequently lumped together and scorned although there are the widest differences among them.

Actually, the intellectuality of a vocational course depends largely upon the teacher. Competent vocational teachers attract and challenge the brightest of students. The content and the rigor of courses in Agriculture, Home Economics, and Trade and Industrial Education have changed radically since these courses were taken by the parents of present-day students.

Vocational teachers usually have closer contacts with students and their parents than other teachers have and so may be more influential than others in shaping their students' general development. They are often the teachers most in contact with life outside the schools and best able to reconcile school and community.

We should ignore neither the contribution of occupational educators to general education nor the contributions of general educators to occupational education. Good occupational choices, occupational competence, and occupational advancement require the integration of occupational and general education.

We have been handicapped by thinking of occupational education as "terminal." Competent vocational educators maintain that no type of education should be terminal. All that any high school can do is to start an individual toward a career which will require additional training and retraining during the rest of his active life.

There is demand for a new conceptualization of the role of the senior high school in occupational education which would indicate more clearly its relations to those of the elementary and junior high schools, the Community College System, and the four-year colleges.

The State has recently, and quite properly, made a large investment in vocational and technical education in the Community College System. In the meantime the local schools have lacked funds and facilities for their rapidly developing vocational programs and have had no State funds with which to provide the practical arts or occupational counseling.

Everywhere there is recognition that there should be cooperative planning of high school and community college programs but little has been done. In some North Carolina schools and in schools in some other states two or three-year sequences in the senior high school have been developed which provide introductions to broad occupational fields with the expectation that specialization will occur in community colleges or technical institutes. The number of these programs that can be provided depends upon the size of a high school. Other school systems are developing special programs in Science and Mathematics for those who will enroll in technical programs after high school.

The four-year colleges and universities could be the most influential change-agents in occupational education in the State. It does not appear that they are. Their potential contributions to preservice education, inservice education, research and development, and public and professional service could be critical but there is a decided lag in each of these areas. There are undeveloped possibilities for the joint training of personnel for occupational education by the Community College System and the four-year colleges and universities.

Inservice education by the colleges and universities is poorly financed and organized with only a few exceptions. The largest program is one in industrial and technical education conducted by North Carolina State University. Research and development in occupational education are just now getting a foothold. Limited consultant services in occupational education are available to the local schools from the institutions of higher education but these are rarely requested.

About $40 million of local, State, and Federal funds are being spent in 1967-68 in federally-aided programs of vocational and technical education in the administrative units and Community College System. If the objectives stated by the Committee on Vocational Education were to be realized, a considerably larger expenditure would be required. Different uses would be made of the funds already available. New ways of raising funds and distributing State funds would have to be devised. It will be necessary for those who appropriate funds and who administer programs of occupational education to estimate the needed funds and decide the priorities.

JUSTIFICATION OF THE NUMEROUS RECOMMENDATIONS

A shorter list of recommendations for the improvement of occupational education in the administrative units would probably be more acceptable, but all of them are interdependent. The situation could be improved by making a few specific changes. The thrust in this report, however, is toward

starting the State on a path it could follow, with minor modifications, over a long period. The shortest time in which the stated purposes could be accomplished would be ten years. With goals clearly stated and accepted, much could be done toward implementing the recommendations during the coming biennium and some goals could be reached in that period.

The State has had Federal funds for vocational education for fifty years. Much has been accomplished but the numerous and difficult problems now faced indicate that, over 50 years, there has not been the foresight and planning that has been needed. We can do better.

RECOMMENDATIONS

The recommendations which follow are stated briefly and with little supporting evidence that they should be adopted. There is, however, a large amount of evidence, most of it supportive, in four documents which have grown out of the study:

Summary of Interviews by H. M. Hamlin with Superintendents and Presidents of Community Colleges and Technical Institutes. 105 pp.

Summary of Interviews by Jesse O. Sanderson with Superintendents and Presidents of Community Colleges and Technical Institutes. 75 pp.

Summary of Interviews by H. M. Hamlin with College and University Presidents. 25 pp.

Report and Interpretation of All Interviews. 20 pp.

Recommendations will be made under the following headings:

(1) Revision of Concepts and Restatement of Purposes
(2) Provisions for Evaluation
(3) State Policy for Occupational Education
(4) Organizing to Provide the Needed Occupational Education
(5) Providing Impartial Service for the Entire Clientele
(6) The Direction of Program Development
(7) Personnel for Occupational Education
(8) State Administration
(9) Funds and Facilities
(10) Research and Development
(11) Public Information and Relationships

REVISION OF CONCEPTS AND RESTATEMENT OF PURPOSES

Real and lasting progress in public occupational education depends upon the acceptance of sound concepts and the objectives which are both valid and attainable. Therefore,

(1) *It is recommended that the General Assembly and the State Board of Education accept the concept of occupational education and the goals for its development stated by the Committee on Vocational Education of this Commission.*

PROVISION FOR EVALUATION

The ultimate responsibility for public occupational education rests with the citizenry. The public and its representatives in the General Assembly and in the State and local boards of education require the most accurate information obtainable regarding the current status of occupational educa-

tion and the needs for its further development. Therefore,

(2) *It is recommended that arrangements for regular, systematic, and thorough evaluations of occupational education be provided for the State as a whole, for regions within the State, and for the local administrative units.*

(3) *It is recommended that in these evaluations there be given as much attention to the quality as to the quantity of occupational education.*

STATE POLICY FOR OCCUPATIONAL EDUCATION

There is need for organized, consistent, and enduring policy for the development of public occupational education in the State. It should indicate the special responsibilities of the administrative units, the Community College System, the four-year colleges and universities and all other State educational agencies. It should be formulated with concern regarding the relationships of these agencies with other public agencies, State and Federal, the training programs in business and industry, and private vocational schools conducted for profit or as a social service. Therefore,

(4) *It is recommended that a unified State policy for occupational education be developed cooperatively by the General Assembly, the State Board of Education, and the State Board of Higher Education.*

(5) *It is recommended that the State encourage and assist the boards of administrative units in developing policies for occupational education.*

ORGANIZING TO PROVIDE THE NEEDED OCCUPATIONAL EDUCATION

Dr. John W. Gardner has said that "our aspirations have outrun our organizational abilities."[1] This is conspicuously true of public occupational education in North Carolina. In order to provide adequate and coordinated programs considerable reorganization is needed. Therefore,

(6) *It is recommended that a comprehensive State Plan for public occupational education be developed separately from the State Plan for the use of Federal funds submitted to the U. S. Office of Education to provide types of occupational education not aided by Federal funds.*

(7) *It is recommended that the arrangements for the local planning of programs of occupational education which the State Division of Vocational Education has been developing over the past six years receive further encouragement and that additional State resources be assigned to assisting the administrative units in their planning.*

(8) *It is recommended that the efforts in occupational education of the local administrative units be planned in keeping with those of all other public educational agencies engaged in this type of education and particularly in relation to the community colleges and technical institutes.*

(9) *It is recommended that policies for the Community College System be reviewed and revised to insure that the System will provide the extension of occupational education in the local schools that it is intended to provide. To this end it would be desirable to district the State for institutions in the System, provide institutions in the 15 percent of the State that lacks them, maintain and expand the*

[1] Quoted in *Time*, January 20, 1967, p. 6.

institutions that have proved their usefulness, and discontinue, attach to strong institutions, or use as area schools for high school students and adults those that have little promise as technical institutes or community colleges.

(10) *It is recommended that the activities of the Division of Vocational Education in the State Department of Public Instruction be better coordinated with those of the Community College System.*

(11) *It is recommended that where feasible, the smaller high schools be replaced by high schools with 750 or more students reasonably adequate to provide the occupational education needed and that the small schools which remain be supplemented by area schools or mobile units providing occupational education not available in them.*

(12) *It is recommended that organizations for the planning of comprehensive programs of occupational education be developed in "natural" regions of the State with participation by the local schools, the area schools, the colleges and universities, the other agencies engaged in occupational education, and representative lay citizens.*

(13) *It is recommended that the provisions for services to the administrative units in the planning of curricula and facilities for occupational education, the development and dissemination of teaching aids, and the provision of consultative services for the local schools be greatly increased.*

(14) *It is recommended that the institutions for higher education become more fully involved in providing preservice education, inservice education, research and development, and public and professional services for occupational education.*

(15) *It is recommended that the efforts of the State colleges and universities related to occupational education in the local schools be better coordinated, perhaps by action of the State Board of Higher Education.*

(16) *It is recommended that the activities of the specialists in the various fields of occupational education in the local schools, the State Division of Vocational Education, and the colleges and universities be better coordinated.*

(17) *It is recommended that a comprehensive graduate program involving all areas of occupational education be developed at North Carolina State University emphasizing policy, organization, administration, and finance with assistance from the faculties of the University of North Carolina (Chapel Hill) and other State higher institutions in the fields of their special competencies.*

(18) *It is recommended that the roles of the private agencies be more commonly recognized in the planning of public occupational education and that a division of labor fair to the public needing this type of education and to the private agencies be developed.*

PROVIDING IMPARTIAL SERVICE FOR THE ENTIRE CLIENTELE

There is growing consciousness of a large potential clientele for public occupational education that is unserved or poorly served.

There should be greater variety in the programs available to girls and

women. Responses from superintendents indicate that fewer than 10 percent of those who drop out of school before high school graduation receive specialized vocational training. There are a few highly successful vocational programs for "exceptional children," which indicate that these should be greatly extended. The vocational offerings for members of the minority races are often limited and unsuitable. Adults are increasingly receptive to occupational education, but only a small part of those eligible for it are being reached.

A joint effort by the local administrative units and the Community College System is required to meet these unserved needs. There are excellent examples in the State. It is widely recognized that, in order to enroll many school dropouts, members of minority races, and others no longer in school, classes must be provided near their places of residence. The administrative units have facilities for these classes and local connections which assist in securing enrollments. There should not be an arbitrary ruling restricting the local schools from engaging in some forms of adult occupational education. Both the Community College System and the administrative units should do all they can do in adult education. All they can do will not be enough. Therefore,

(19) *It is recommended that the need for occupational education of groups now served inadequately be reexamined and that the services to these groups be improved.*

THE DIRECTION OF PROGRAM DEVELOPMENT

One of the major needs is for the evolution of new programs designed to implement the goals stated by the Committee on Vocational Education. There is urgent need for planning senior high school programs correlated with programs of vocational and technical education students will pursue in the Community College System. Coordinated programs have recently been reported from 136 areas in the United States. They are rare in North Carolina. Therefore,

(20) *It is recommended that the educational base for vocational specialization be made more sound and that students be held in school long enough to secure the basic and general education required for specialized vocational-technical education and for occupational competency.*

(21) *It is recommended that occupational information and counsel be made available appropriately to students in the elementary schools, the junior high schools and the senior high schools and to their parents and other adults.*

(22) *It is recommended that suitable programs of occupational education be provided in the junior high schools or middle schools with special attention to the planning of careers and the education required for them and a decided expansion of offerings in the practical arts (nonvocational Agriculture, Business, Home Economics, and Industrial Arts).*

(23) *It is recommended that the high schools prepare for vocational and technical education in the Community College System and for employment on school leaving with at least as much care at they now prepare for the four-year colleges.*

(24) *It is recommended that the vocational offerings in the senior high schools be broadened to include seven major occupational areas: Agriculture, Business, Distribution, Health Occupations, Home Economics, Public Service, and Trades and Industries with immediate emphasis upon expansion in those areas in which the programs offered have not been in keeping with the importance of an area or the number of workers in it.*

(25) *It is recommended that the strong programs in Vocational Agriculture and Vocational Home Economics that have developed over a long period be maintained and further adapted to modern conditions.*

(26) *It is recommended that summer programs in vocational education and the practical arts be encouraged by providing State funds and increasing the months for which teachers may be employed.*

(27) *It is recommended that the highly successful work-study programs provided in several vocational fields be further extended and that parallel programs be provided in the Social Sciences and other non-vocational fields.*

(28) *It is recommended that the schools assume responsibility for placing and following up the students who leave school at or before high school graduation, providing part-time educational opportunities related to their employment and counsel about further occupational education.*

(29) *It is recommended that vocational programs for exceptional children be provided more generally.*

(30) *It is recommended that the administrative units organize whatever adult programs of occupational education they are willing and able to conduct, that the present restriction limiting them to adult classes in Agriculture and Home Economics be removed, and that the present excellent cooperation between many of the local schools and institutions in the Community College System in providing adult education be continued and extended.*

PERSONNEL FOR OCCUPATIONAL EDUCATION

Lack of competent personnel for every type of position in occupational education is a current bottleneck. It is ironic that of $40 million spent for vocational education in the State this year only $300,000 is being used to prepare staff. The colleges are supplying inadequately the personnel needed in the more traditional fields; Agriculture, Home Economics, and Business. A large part of the instructional force needed in Distributive Education, Health Education, Trade and Industrial Education, and Vocational Office Education is recruited outside the educational system and come to the schools with limited training or no training for the special responsibilities of teaching. Teachers of Industrial Arts are scarce since many teachers have been claimed by the Community College System, high school vocational programs, and industry. Few are being prepared for administrative, supervisory, and other "top-level" positions. Personnel in the State Division of Vocational Education lack opportunities and inducements for further education. The provision of new types of personnel through joint programs of the community colleges and the four-year institutions is now only in an exploratory state. Therefore,

(31) *It is recommended that the State Board of Higher Education in*

cooperation with the State Board of Education make an immediate canvass of the need for personnel and arrange for its recruitment and training.

(32) *It is recommended that salaries for personnel in occupational education be made competitive with salaries for this type of personnel in other states and with salaries in business, industry, and government with realization that, unless competent personnel is provided, the schools' efforts in occupational education should be abandoned.*

(33) *It is recommended that many more full-time and part-time positions for local directors of occupational education be allotted.*

(34) *It is recommended that teachers be prepared for the elementary schools and the junior high schools with special competency for providing the occupational education needed at these levels in addition to the usual competencies.*

(35) *It is recommended that a massive program be developed for the retraining and updating of vocational personnel now employed, including teachers, supervisors, and teacher educators, using fully the present resources of the colleges and universities and adding materially to them.*

(36) *It is recommended that opportunities be provided for present and prospective school administrators (superintendents, assistant superintendents, and principals) and school board members to become better acquainted with their responsibilities in occupational education.*

STATE ADMINISTRATION

There is a growing revolt against undue and detailed State control of occupational education in the local schools. Balancing this is an attitude nourished since the 'thirties, which leads many of the local people to say "let the State do it."

We should seek a better balance between local and State control, encouraging the administrative units to do all that they can do well and providing supplementary State assistance. Therefore,

(37) *It is recommended that State controls over occupational education be reviewed with special consideration of their efforts upon local initiative and responsibility.*

(38) *It is recommended that services in promoting occupational education from a central office be supplemented by regional offices in areas of the State.*

(39) *It is recommended that specialists and consultants from the Raleigh office be made available to the regional directors and to schools desiring special services.*

(40) *It is recommended that positions in occupational education be allotted to the administrative units early in the calendar year to permit maximum access to available personnel.*

(41) *It is recommended that an increasing number of personnel in occupational education be employed for 11 or 12 months in situations where additional time can be justified.*

(42) *It is recommended that positions for counselors with competence in*

occupational counseling and for teachers of the practical arts be included among those that are State-allotted.

FUNDS AND FACILITIES

It is obvious that programs of occupational education of high quality, available to all who need them, will call for much larger expenditures than those currently being made.

In 1966-67 the State, the local administrative units, and the units in the Community College System contributed more than $27 million toward the federally-aided program of vocational-technical education. This was three-fourths of the total expenditure; the remaining 25 percent came from the Federal government. Forty percent of the funds raised in North Carolina came from the local units of the public schools and the Community College System, a remarkable display of local financial initiative in a State in which it is difficult to raise local funds for education. Sixty percent came from the State.

In this report the stand has been taken that strengthening the entire public school system is as important as strengthening the vocational program in the occupational education. Much larger increases for nonvocational education than for vocational education will be required if this general improvement is to occur.

An increase of $10 million a year in State funds during the 1969-71 biennium would give occupational education in the administrative units impetus in the direction it should go. There will be no attempt to indicate in detail how this amount might be spent. The largest expenditures should be for added staff members and improved facilities (buildings and equipment) in the local schools, perhaps three-fourths of the total amount. Expenditures for these two purposes must be considered together; there is no point in providing facilities if competent staff is not available. The remaining fourth is needed to increase the services to occupational education of the colleges and universities, subsidize research, development, and curriculum planning, and extend and upgrade the work of the State Division of Vocational Education.

If it were assumed that half of the new funds granted to the administrative units were to be used for programs they do not now provide, some 30,000 additional students could be enrolled. Another use of the funds would be to provide more appropriate but more expensive programs for students already enrolled. An increase of $3,750,000 in operating funds for vocational ecucation in the public schools, which has been proposed, would mean a one percent increase in the State's contribution to the operating costs in these schools.

A large investment in the practical arts and in counseling (including occupational counseling) at the junior high school level will be required since there is little of either in the schools of the State. There should be large increases also in the meager funds spent for adult occupational education.

It is not reasonable under present conditions for the administrative units to finance the total cost of buildings and equipment. The development of adequate programs of occupational education in many units is being retarded by the present policies.

Advantage should be taken of the readiness of the administrative units to spend their own funds for occupational education. A minimum percentage of the costs of facilities should be exacted from the administrative units, which

should also be encouraged to supplement the State salary schedules. The main reliance in raising more local funds should be upon sharing with the people responsible for spending in these units the vision of occupational education the Commission and its associates have seen. Our interviews with school administrators indicate enthusiasm about the goals which have been proposed.

Governor Sanford once said that the people of North Carolina can find the money to do anything they really want to do. If our people become fully committed to improved occupational education, the funds will follow.

There is a special problem in deciding whether to invest further in occupational education in the smaller schools. Many of these will be eliminated, so that the investment might be better made in the larger schools that will emerge. Some will remain. The smallest high schools, usually in rural communities, could continue their emphasis upon Agriculture and Home Economics. They could provide supervised work experience in diversified occupations. They should certainly improve their occupational guidance. Programs in the practical arts should be added. Their greatest contributions to many students would be to provide for them superior basic and general education and inducement to receive specialized vocational, technical, and professional education beyond the high school.

Fortunately, the Federal government may increase decidely the funds for vocational education that will be made available to the State. New authorizing legislation has passed both houses of Congress and as of September, 1968 awaits action by a conference committee, passage of a revised bill, and approval by President Johnson. Following its enactment there will still remain determination by the Congress of the amounts to be appropriated for 1968-69.

The authorization for 1968-69 if appropriated would approximately double North Carolina's share of Federal funds, but it is not expected that there will be an increase in that year. An increase in 1969-70 is expected. By 1971-72 Federal funds would be about triple those now received. North Carolina's share of the authorized appropriations would start at $20,808,079 in 1968-69 and rise to $28,402,996 in 1971-72. The funds currently received from the Federal government approximate $10 million.

The new legislation broadens considerably the purposes for which vocational funds can be used. Reimbursements up to 90 percent are provided for some programs. There would still be no Federal aid for the practical arts, but several types of occupational education recommended in this report would receive financial encouragement.

More of the funds available under the national Elementary and Secondary Act could be used to supplement the Federal vocational education funds. There are State funds for vocational education in excess of those required to match Federal funds, which could be used as the State sees fit. Thus far, all State funds have been combined with Federal funds and used under regulations of the Federal government.

Many of the changes which have been recommended could be introduced only gradually. These could be initiated in the 1969-71 biennium with limited appropriations for research, developmental projects, and the preparation of personnel. Many of the proposed changes do not call for added expenditures but for a redirection of thinking.

Sound fiscal planning for the next decade and especially for the next biennium is required if the reforms proposed are to be accomplished. Expenditures should be balanced so that every weakness in the present program receives attention. We must not be distracted into doing only those

things which the Congress thinks are important and for which it provides funds. Therefore,

(43) *It is recommended that full use be made of the additional funds for vocational education to be provided by the Federal government, and that these be used to assist in implementing a comprehensive State program of occupational education funded with State and local funds as well as Federal funds.*

(44) *It is recommended that the needs of the local schools be considered as seriously as those of the Community College System in alloting funds for vocational education.*

(45) *It is recommended that the administrative units receive special financial help to meet their overdue needs for teaching positions, buildings, equipment, teaching aids, and consummable supplies.*

(46) *It is recommended that local funds for occupational education be increased decidedly from local sources and by the allotment of unrestricted State funds.*

(47) *It is recommended that student fees for high school vocational courses be reduced or eliminated in an effort to make these courses more generally accessible.*

(48) *It is recommended that the funds for adult occupational education in administrative units be increased and that they be increased also in the Community College System since many of the programs for adults are conducted in local school buildings for the clienteles of the administrative units.*

RESEARCH AND DEVELOPMENT

Many of the proposals included in this report are innovative. They cannot be carried out statewide until studies are made and developmental projects are conducted.

The State has a special resource in the Center for Occupational Education at North Carolina State University, one of two of its kind in the United States. It is regarded as a national center with special responsibilities to 13 southern states, but its presence in North Carolina makes it a unique asset to this State.

The State has also a research coordinating unit for occupational education, conducted jointly by the State Department of Public Instruction and North Carolina State University, which is associated closely with the Center for Occupational Education.

There are large and growing programs of research and development in the higher institutions and elsewhere that deal directly with public occupational education or relate closely to it.

The approach to occupational education indicated in this report is unique. Because it is, there is not a body of research findings to support action programs. It will therefore be necessary to proceed cautiously with studies preceding and accompanying the new developments which have been suggested. Therefore,

(49) *It is recommended that the present agencies for research and development in occupational education be supported and strengthened.*

(50) *It is recommended that pilot programs precede the statewide introduction of new programs, particularly those for the elementary schools and the junior high schools.*

(51) *It is recommended that the research of the colleges and universities that is relevant to occupational education be more fully used and that these institutions explore the need for research in this field and expand their research programs related to it.*

PUBLIC INFORMATION AND RELATIONSHIPS

The changes suggested cannot be effected without providing the relevant information to the citizenry that is required for public support. The State can provide a part of the needed information and can use the counsel of representative citizens in formulating its policies and programs. It cannot, however, do the job alone. There is need for adequate public information and cordial working relationships with the lay public in each administrative unit.

The best single device for informing the public and providing good school-community relations is the use of citizens consulting committees. These are primarily useful in the development of school policy, therefore the principal advisory group should be attached to a local or State board of education with subsidiary groups that work with administrators and teachers. Such an arrangement would offset the divisive and fragmentary ones now usually in effect which provide an advisory committee for each specialized phase of occupational education with no communication among the committees or between the committees and the board of education.

There should be full cooperation with the news media with the primary purpose of making available to them the information they want. There should be a series of publications from the State Department of Public Instruction intended for lay use. Therefore,

(52) *It is recommended that the State provide exemplary citizen participation in the development of State policies for public occupational education and that it provide the encouragement and the consultant services necessary to develop sound citizen participation in each of the administrative units and in regions of the State with common interests and common needs for occupational education.*

(53) *It is recommended that the public information responsibilities of the State Division of Vocational Education be enlarged and that resources adequate to discharge these responsibilities be provided.*

WAYS AND MEANS

Perhaps the most important thing to be done is to gain official and public acceptance of the broad concept of occupational education and the three major objectives proposed by the Committee on Vocational Education. Next would be the adoption at State and local levels of comprehensive policies related to these objectives.

After indicating these primary steps, it is hard to suggest priorities. If any one recommendation is not implemented, the whole structure is weakened.

The General Assembly and the State Boards may be inclined to act first upon the proposals about which the public and the profession seem to be most concerned. These can be indicated:

(1) Development of a modern and broad program of occupational education in the senior high schools.

(2) More funds for buildings and equipment.

(3) Filling the vacuums in occupational education in grades 7 and 8 of most school systems.

(4) Relating the high school and post-high school programs of students who will enroll in vocational and technical programs in the Community College System.

(5) Provision of adequate numbers of competent professional personnel for occupational education.

(6) Regional planning of the programs in occupational education of the local schools, the community colleges and technical institutes, the four-year colleges, and other agencies.

(7) Provision of occupational counsel, training, and placement for entry jobs for those who will leave high school at or before graduation.

(8) Increase of work-study programs.

(9) Reduction of specific State controls and decentralization of State administration.

(10) More positions for local directors of occupational education.

(11) Summer programs in vocational education and the practical arts for those unable to enroll in these programs during the school year and others who want to supplement the training received during the school year.

(12) Articulation of the activities of the State Division of Vocational Education and the Department of Community Colleges.

(13) Improved communication and cooperation among specialists in the various segments of occupational education in the State Department of Public Instruction, the colleges and universities, and the local schools and among the colleges and universities concerned with occupational education.

(14) More help from the colleges and universities and other State agencies in evaluating and revising local programs, devising curricula and teaching aids, and providing inservice education and consultant services.

(15) Maintenance of a quality program in a community college system blanketing the State, which can supplement and build upon the programs of occupational education in the local schools.

There are other actions to be taken, some of them more urgent than actions included in the preceding list, for which there is no public or professional clamor:

(1) Formulation and adoption of comprehensive State and local policies for occupational education.

(2) Encouragement of the research and development essential in redesigning the State program and systematic accumulation and use of the data required for the planning of policies and programs.

(3) Continuation of arrangements for the adequate evaluation of occupational education.

(4) Provision for the public of the information it needs for its decisions about public occupational education.

(5) Development of a comprehensive State program for occupational education to include but go much beyond the present State Plan,

which deals only with the State's relationships with the Federal government.

(6) Establishment of a State fund for use in promoting forms of occupational education not Federally-aided, using as its nucleus State funds in excess of those required to match Federal funds which are now spent under Federal regulations.

(7) District reorganization to provide more high schools of adequate size, crossing county lines when desirable.

(8) Preservice and inservice education of school administrators regarding their responsibilities in occupational education.

(9) Many more counselors and a decided increase of counselors competent in occupational guidance.

(10) Systematic counseling of parents regarding occupations for their children and the educational requirements for entry and advancement.

(11) Development of working relationships with private agencies engaged in occupational education.

(12) Extended opportunities for adult occupational education, adapted to the types of adults served and made conveniently available.

(13) More diversified vocational offerings for women and girls.

(14) Occupational education adapted to Negroes' present and prospective opportunities for employment.

(15) Expansion of occupational education for exceptional children and youth.

(16) Adaptation of courses in English, Mathematics, and Science to the needs of students in vocational programs.

(17) More realistic counseling of "the college-bound."

(18) Continuing support of Agriculture and Home Economics and modernization of programs in these fields.

(19) Summer programs in vocational and practical arts education.

(20) Arrangements for the placement and follow-up of graduates and former students in vocational programs.

(21) Part-time occupational education for employed dropouts.

(22) Special training of teachers in the elementary and junior high schools for their roles in occupational education.

SOME SPECIAL CONSIDERATIONS

It is easy to become over-enthusiastic about the possibilities of occupational education and particularly about its possibilities in the high schools.

There are severe limits upon high school vocational education. It must build upon the basic and general education provided by the rest of the school system, which is often inadequate. It must be adapted to relatively immature students, frequently uncertain about the vocational choices they will make. It can be given so long before employment that its usefulness when employed is slight. Some vocational programs are best postponed beyond the high school, particularly if the equipment costs exceed those the school budget can meet without handicapping other programs.

Do not expect that the high schools will do all that needs to be done in public vocational education. Build and maintain a strong community college system blanketing the State whose programs are coordinated with those of the high schools.

Do not expect that the inclusion of vocational education will eliminate dropouts. It may help but the causes of dropping out are many and varied.

Do not regard dropouts as hopelessly ineducable. Maintain contacts with them and open opportunities for continuing occupational education.

Do not plan occupational education piece by piece but as a coordinated and balanced program, coordinated and balanced also with general education.

Do not try to accomplish all vocational education in classrooms and shops. Extend the very popular and practical programs providing cooperative work experience.

Make occupational education including guidance and training easily accessible to out-of-school youth and adults. This does not imply putting a community college or a technical institute in every county or every village. It suggests a cooperative arrangement between the administrative units and the community college system with each free to do all it can to meet the needs of these groups. It suggests arrangements for transportation and financial aid to students who need to attend full-time institutions somewhat remote from their homes which can supplement and build upon the offerings of the high schools.

Do not expect a healthy response to vocational offerings until parents and counselors get off their college binge and begin to think realistically about occupational opportunities and the preparation needed to qualify for them.

Do not yield to the temptation to train only for local occupations in a society in which migration is normal and opportunities outside a community are often more diversified and rewarding than those the community can provide. Keep first in mind the welfare of the individual who is the school's client.

Do not ignore the vocational education provided outside the schools in planning school programs.

Finally, do not expect good policies and programs to develop spontaneously. They demand the most careful planning by boards of education, administrators, teachers, and representative lay citizens, who require the assistance of specialists from the State Department of Public Instruction and other consultants.

CONCLUSION

A massive effort and a large expenditure of public funds are obviously required to do what has been recommended. Before an adverse decision is reached, there should be consideration of some of our most cherished values and their relation to the proposals that have been made.

We hold that the schools should help every American to become all that he can become. We know that competence in an occupation is a normal requisite to good citizenship, good family relations, one's standing in his community, and one's opinion of himself. Dr. Robert J. Havighurst has said:

> "In American society lifework is the most important single thing about a man. He had been taught to evaluate his worth to society, and sometimes his worth in the sight of God, by the level of his occupation and the quality of his performance in it."[2]

[2] *Human Development and Education*, pp. 129-130. Longmans, Green, and Co. New York. 1953.

We fear the civil disruption that may be caused by groups who feel that they are not sharing adequately in the general economic prosperity but who often lack the qualifications required if they are to share more adequately. We bewail the vast expenditures for relief and the delinquencies of older, unemployed youth.

We note at the same time the shortages of almost every kind of skilled and technical labor. We know that the requirements for employment are rising and that they will rise still higher. We recognize that few jobs, and these the poorest ones, can be learned by the "pickup" method.

Mrs. Agnes Meyer once said that there is danger that America may become a vast hospital with the competent half caring for the incompetent other half.

We have great faith in education, which has been well justified by our experience. We need to view education more critically. Not all education is good or useful. Under what conditions does it pay off in terms of improved citizenship and rounded personal development?

It is easier to see the economic returns from occupational education than to see the returns from some other forms of education which may be just as valuable, but it must be good occupational education to be supported and good occupational education is exceptionally expensive. Businessmen and industrialists recognize that it is expensive but are usually ready to give it their support.

The costs of not providing good occupational education are also large. The public pays them when it buys inept workmanship and inferior materials.

The public pays for occupational education whether or not the schools provide it. An estimated $20 billion a year for the vocational and technical education provided privately by business and industry is added to the costs of consumer goods and services. Yet large segments of business and industry cannot or do not provide training programs.

There is wide agreement that the cheapest way to provide vocational education is through our public educational institutions. Private business and industry, put to the test, will usually respond much as the director of training of the Caterpillar Tractor Co. who has said: "We want to teach our special knowhow. We want the schools and colleges to teach everything else that is required." For many obvious reasons, it is reasonable to expect that a steadily increasing part of the burden of providing vocational and technical education will fall upon the public schools and colleges. If it does not, it will be because these institutions will have failed to provide high quality, up-to-date education of these types.

Vocational education can become quickly obsolescent. There is special need for re-evaluating it frequently. It can be provided too long before one can be employed. It is too frequently omitted during adulthood when it is needed in adapting to changes in an occupation or for transfer to a new occupation with greater opportunities.

Occupational education, as we have defined it, is required long before employment. Its objective in the elementary and secondary schools is to develop adaptable and mobile individuals, able to view all of their occupational opportunities with wisdom, to take successfully the special training required in the occupations of their choice, and to succeed in entry jobs if they leave school at or before graduation. To produce individuals of this type is the joint task of general and occupational educators.

The public is likely to get no better occupational education than it wants. To accomplish what is needed, the citizenry must come to understand what

is required to produce a skilled labor force. Too often, its representatives in state legislatures and Congress fund makeshift, emergency programs which cannot possibly produce the expected outcomes. Temporary programs for uneducated or miseducated adults may be needed for a long time, but we need to begin to educate a work force at appropriate times and in appropriate ways from childhood through adulthood.

North Carolina could provide statewide the best occupational education available in the United States. There are few states in which it is so generally accepted as a proper and important function of the public schools. The public supports it. School administrators and other educational leaders are pressing for its extension and improvement. The work of the local schools is supplemented by one of the best state systems of community colleges in the country, which gives far more attention to vocational and technical education than most systems of community colleges do. There has been good support from the governors and the successive General Assemblies.

Our current difficulties do not arise from a lack of will to do what ought to be done but from indecision as to what to do in a complex and rapidly changing situation. It is hoped that this report will suggest some appropriate courses of action.